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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
WASHINGTON 25, D. C.

In Cooperation with State, Federal and Other Agencies

COTTON INSECT CONDITIONS - JULY 17, 1951
(Seventh Cotton Insect survey Report for 1951)

The boll weevil situation this summer has not been as serious in most areas as in 1949 and 1950. At no period this season have conditions been such in any State as to indicate that the weevils might reduce the yield of cotton as much as in 1950. In fact, the relatively low weevil populations this summer make it seem likely that they will not reduce yields in any States as much as in 1949, except possibly in Missouri, Texas and Oklahoma. (In 1949 the weevils were estimated to have caused no reduction in the yield of cotton in Missouri, 3% in Texas and 8% in Oklahoma.)

This season started with boll weevils less numerous than usual in most areas. Three factors that have aided greatly in holding the boll weevil populations down were the periods of hot, dry weather that have occurred in all of the States where the boll weevil occurs; the many natural enemies of the weevil - both predators and parasites; and the extensive use of insecticides.

The cotton leafworm, Alabama argillacea Hbn., is not likely to become an important factor in this year's cotton crop. It was first found in Texas on July 17, a later date than in any of the previous 29 years, except in 1949 when the first leafworms were found on July 18. Although it is not likely to become a serious menace to the cotton crop this season, it will be of special interest to note its spread during 1951. The spread of this insect is quite unpredictable. Its appearance in any county should be reported promptly. The wide use of insecticides for the control of the boll weevil and other insects in 1950 undoubtedly did much to prevent the cotton leafworm from becoming much more serious than it was last year.

No cotton grower should feel complacent because of the present cotton insect situation. Each field should be examined frequently so as to discover promptly any serious pests.

Recommended Reading: "Boll Weevil Control in Late Summer" by Dwight Isely and Gordon Barnes is the title of Bulletin No. 510 of the Agricultural Experiment Station, University of Arkansas, Fayetteville, that was issued in May 1951.

INSECTICIDES

Alabama: The County Agricultural Agent at Birmingham, Jefferson County, reported that the farmers are having difficulty in obtaining toxaphene and BHC-DDT.

A FINE SERIES OF COTTON INSECT SURVEY REPORTS

Cotton Insect Survey Report for the Lower Rio Grande Valley No. 18 that was issued on July 12 is the final survey report in that series for this season. (Excerpts are quoted on page 7.) Mr. A. N. White, Associate County Agent in charge of the entomology work of the Extension Service in the Lwer Rio Grande Valley, and all who cooperated with him, deserve much credit for a series of helpful and informative reports on cotton insect conditions. Mr. White realizes that now is the time to make preparations to prevent the development of serious infestations of the boll weevil and pink bollworm next year. He writes: "The next phase of cotton insect control for most growers will be the early destruction of the cotton stalks following harvest. We believe that the good clean-up last fall has been largely responsible for the very light pink bollworm and boll weevil population during this season. We feel that if everyone does the best possible job of plowing the stalks and debris under deep, as much as 6 inches or more, and then in keeping the volunteer plants down throughout the winter, that this will go a long way toward giving us another relatively light pink bollworm and boll weevil populations next year."

BOLL WEEVIL

Virginia: County Agent J. W. Freeman, Suffolk, Nansemond County, reported on July 15 that weevils are numerous on the undusted cotton and a few occur in the poisoned fields.

North Carolina: Cotton News Letter No. 16 issued by the Extension Service on July 13 reported: "There is much variation in weevil infestation in all parts of the State." A tabular statement indicates that boll weevil infestation counts were made in 466 fields in 44 counties. Of the 185 unpoisoned fields that had not received insecticide treatments there were only 9 that were apparently still free of weevils. In 80 fields less than 10% of the squares were punctured. In 54 fields the infestations ranged between 11 and 25% punctured squares. In 30 fields the infestations ranged between 26 and 50% punctured squares, and in 12, more than 50% of the squares were punctured. In the poisoned fields that had received applications of insecticides there were 79 fields that were apparently free of weevils; in 168 fields the infestations did not exceed 10% punctured squares; in 25 they ranged between 11 and 25% punctured squares, and in 9 fields they exceeded 25% punctured squares. Among the counties with the highest infestations were Anson, Cabarrus, Edgecomb, Gaston, Halifax, Montgomery, Robeson, Rowan, Scotland, Wake, and Warren Counties.

South Carolina: L. C. Fife and Associates reported for the week ending July 13: "Survey records were made in 54 non-poisoned fields in 18 counties; all fields were infested. The square infestation averaged 26.9% as compared to 31.8% for the previous week and 65.9% for the corresponding week in 1950. In 5 fields the square infestation ranged from 1 to 10%, in 23 fields from 11 to 25%, in 20 fields from 26 to 50%, and in 6 fields over 51%.

"Fifty-four poisoned fields were examined in 18 counties; 44 fields were infested. The square infestation averaged 8.8% as compared to 11.3% for the previous week and 10.7% for the corresponding week in 1950. In 25 fields the infestation ranged from 1 to 10%, in 17 fields from 11 to 25%, and in 2 fields from 26 to 50%."

Georgia: C. M. Beckham, George M. Sutton and E. T. Cody reported that during the week ending July 13 boll weevils were found in 195 of the 217 fields examined in 37 counties. Of the fields that had been treated with insecticides for boll weevil control 87% were infested with weevils at an average rate of 7% punctured squares. Of the fields that had been treated with insecticides 95% were infested with weevils at an average rate of 13% punctured squares. Some of the highest infestations were found in Jasper, Madison, Morgan, Berrien, Butts, Irwin, Jenkins, Meriwether, and Worth Counties.

Alabama: During the week ending July 14 Conrad J. Ward found boll weevils in 59 of the 65 fields examined in 10 counties, chiefly in the northwestern section of the State. The 59 infested fields averaged approximately 21% punctured squares, but if all of the 65 fields examined are included, there is an average of approximately 19% punctured squares. In 6 fields no weevils were found, in 38 fields the percentage of punctured squares did not exceed 25%. In 18 fields the infestations ranged between 26 and 50% punctured squares, and in only 3 fields (in Franklin, Lamar and Marion Counties) were more tha n 50% of the squares are punctured.

Tennessee: Arthur P. Morris, Entomologist, reported on July 13 that boll weevils were found in 19 of 20 fields examined in Henderson, Hardin and Decatur Counties at an average rate of 24% punctured squares in the infested fields and 23% for all fields. Infestation ranged from 1 to 25% in 10 fields, from 26 to 50% in 7 fields and in 2 fields in Decatur County more than 50% of the squares were punctured, In the examination of 25 fields by federal entomologists in Shelby, Hardeman, McNairy, and Fayette Counties weevils were found in 23 fields at an average rate of 17% punctured squares. No weevils were found in 2 fields in Hardeman County. The infestation ranged from 1 to 25% in 17 fields, from 26 to 50% in 5 fields, and in 1 field in Fayette County more than 50% of the squares were punctured.

Mississippi: Mississippi Weekly Cotton Insect Report, July 16: "Weather conditions during the past week have been favorable for cotton growth over most of the State. Boll weevil infestations have remained about the same as last week. In the examination of 938 fields in 46 counties weevils were found in 664 fields with an average infestation of 9% punctured squares, the same percentage as last week and compared to 18% at this time last year."

Weevil infestation did not increase in the Delta. Of 731 fields examined in 17 Delta Counties 512 or 70% were infested as compared with 71% last week. The average infestation in infested fields was 7%, the same as last week. A year ago when 661 fields were examined, 579 or 88% were found to be infested at the rate of 17% against 7% this year.

Louisiana: R. C. Gaines reported July 12: Hot, dry weather over the State held weevils in check in most areas. The average boll weevil infestation in 499 fields in 21 parishes was 8% as compared with 9% last week and with 18% punctured squares at this date in 1950, and 15% in 1949. During the past week not weevils were found in 2% of the fields examined. The infestation ranged 1 to 10% in 68% of the fields, from 11 to 25% in 23% of the fields, from 26 to 50% in 6% of the fields, and more than 50% in 1% of the fields.

Average Boll Weevil Infestations in Louisiana From 1943 to 1951, Inclusive

Year	Week Ending								
	June	July				August			
	28	5	12	19	26	2	9	16	23
	Percent Squares Punctured								
1951	16	9	8						
1950	--	26	18	20	21	23	27	44	37
1949	13	13	15	18	26	32	34	--	--
1948	6	7	11	14	20	21	32	--	--
1947	--	15	17	21	21	19	15	16	--
1946	35	24	41	49	51	68	73	--	--
1945	--	16	18	27	28	31	54	54	73
1944	10	10	8	9	15	10	21	14	--
1943	10	10	9	15	19	28	31	--	--

John S. Roussel reported for the Monroe area: "Weather conditions favorable for insecticide applications. Some general dusting being made; a great deal of spot dusting going on. Heavy emergence of first generation weevils in fields at present."

Arkansas: Gordon Barnes, Extension Entomologist, wrote to Certain County Agents on July 16: "First generation weevils are present in a number of fields. Emergence has been slower than was expected. Up to 60% climatic control and 10 to 15% parasitic control were found in 1 field in Crittenden County. Dead grubs and pupae have been found in squares in a number of fields. With favorable weather the infestation will probably rise fast from now on. Unfavorable weather to weevil development may cause infestations to remain stagnant. There has been to much 'blind' treating. More emphasis should be placed on scouting the cotton to determine infestations before applying poisons."

Of 510 fields in 15 counties the infestation averaged 13% punctured squares. The highest infestations were found in the southwestern portion of the State where the average was 28%, as compared with 23% last week and 31% in 1949. In the southeastern portion the average infestation was 7%, as compared with 8% last week, 15% in 1950, and 29% in 1949. The average infestation in the northeastern portion was 9%, and the central portion was 4%. Throughout the State punctured squares were found in 54% of the fields examined.

Average Boll Weevil Infestations in Southeastern Arkansas (Ashley, Chicot, Drew, Desha, Lincoln, and Jefferson Counties) From 1943 to 1951, Inclusive

	Week Ending								
	June	July				August			
Year	28	5	12	19	26	2	9	16	23
	Percent Squares Punctured								
1951	17	8	7						
1950	--	12	15	10	20	19	30	42	53
1949	42	31	29	29	43	51	50	--	--
1948	6	5	4	7	8	16	23	19	29
1947	--	13	30	30	38	30	22	26	--
1946	--	12	29	15	37	37	41	48	--
1945	--	5	10	11	14	11	23	22	44
1944	--	--	5	5	2	3	3	3	--
1943	--	10	4	8	7	7	12	--	--

Texas: Heavy damaging infestations of weevils are spotted and mostly in northern and eastern areas. The average weevil infestation in 978 fields examined was 16% punctured squares, as compared with 12% last week and 24% at this time last year. The average infestation in the poisoned fields was 12% and in the unpoisoned fields 25%.

Oklahoma: The Weekly Cotton Insect Report issued by the Extension Service for the week ending July 14 stated that 267 fields were examined in 33 counties. Boll weevils were found in 201 fields in the 33 counties. Fields with 50% or more punctured squares were found in Okfuskee, Garvin, Stephens, Muskogee, and Okmulgee Counties.

BOLLWORMS

South Carolina: On May 29 J. G. Watts found the bollworm, *Heliothis armigera*, on cotton in Bamberg County. (Det. J. G. Franclemont)

Georgia: C. M. Beckham, George M. Sutton and E. T. Cody reported bollworms in 73 of the 217 fields examined in 57 counties. Bollworms were found in 29% of the unpoisoned fields and also in 29% of the fields that had been treated with insecticides for boll weevil control. However, the average bollworm infestation was 0.53% in the fields that had been treated for boll weevil and 0.33% in the fields that had not been poisoned. Bollworms were most abundant in Calhoun County where they had damaged 5% of the 600 squares examined in 6 fields.

Alabama: Conrad J. Ward found bollworms in 30 of the 65 fields examined in 10 counties during the week ending July 14. Fields with 6% of the bolls attacked by bollworms were noted in Lamar, Lee, Tuscaloosa, and Winston Counties.

Mississippi: Bollworms in general are light but are present in many fields throughout the State.

Texas: Light infestations with some spotted heavy infestations of bollworms have been found in northcentral, northeastern, and eastern areas. Most of the cotton in central and southern areas has matured beyond the state of being attractive to bollworms, although some fields in these areas still have sufficient infestations to justify control measures.

In a collection of lepidopterous larvae made from cotton on 9 farms in McLennan and Falls Counties on May 25 by K. P. Ewing there were 19 specimens of the bollworm, *Heliothis armigera* (Hbn.), taken from 7 fields; 9 specimens of the tobacco budworm, *H. virescens* (Fabr.), taken from 5 fields; 5 specimens of *Heliothis* sp. too small for specific determination that were taken from 3 fields, and 1 *Prodenia* sp. From 1 field in Falls County there were collected 2 bollworms, 3 tobacco budworms, 1 cotton square borer, *Strymon melinus* (Hbn.), 1 webworm, *Loxostege* sp., and 1 *Platynota* sp. (Det. J. G. Franclemont and H. W. Capps)

COTTON LEAFWORM

Texas: The first cotton leafworm found in the United States in 1951 was taken from cotton near Russelltown, Cameron County, by Douglas Early, Los Fresnos, on July 17, 1951.

MISCELLANEOUS INSECTS

South Carolina: Lepidopterous larvae taken from cotton at Florence on June 25 by G. C. Finklea proved to be the yellow-striped armyworm, *Prodenia ornithogalli* Gn., sometimes called the cotton boll cutworm. (Det. J. G. Franclemont)

J. G. Watts of the Edisto Experiment Station, Blackville, made several interesting collections during May of lepidopterous larvae injurious to cotton. On May 8 at Edgefield he found the fall armyworm, *Laphygma frugiperda* (J.E.Smith), and at the same place on May 30 he found the granulate cutworm, *Feltia subterranea* Fabr. On May 29 in Bamberg County *Callarctia phyllira* (Drury) was found causing relatively little injury to cotton. (Det. H. W. Capps and J. G. Franclemont)

Spider mites collected on cotton, Florence, June 25, by R. L. Walker proved to be the two-spotted spider mite, *Tetranychus bimaculatus* H., (Det. E. W. Baker). The spider mite *Septanychus texazona* McG. was collected on cotton at Edgefield on May 30 by J. G. Watts. (Det. E. W. Baker)

L. C. Fife and Associates reported for the week ending July 13: "No infestations of aphids, red spider mites, and bollworms were sufficiently abundant to justify insecticides for their control."

Georgia: On July 9 Professor Joseph J. Paul, Department of Biology, University of Georgia, Athens, found the grandulate cutworm, Feltia subterranea (F.), causing rather severe damage to cotton.(Det. J. G. Franclemont)

C. M. Beckham reported for the week ending July 13 that scattered light infestations of aphids and no spider mites noted. Climbing cutworms (probably Prodenia ornithogalli) were reported in several north Georgia counties.

Mississippi: The yellow-striped armyworm, fall armyworm and granulate cutworm are causing damage in a few local areas over the State, along with a few garden webworms. In the examination of 731 fields in 17 Delta counties square damage by lepidopterous larvae was reported in 228 fields, larvae were reported in 48 fields and eggs were reported in 30 fields.

Texas: Small lepidopterous larvae were collected from cotton on two farms in McLennan County on May 2 and 3. The specimens from one farm proved to be Prodenia sp., probably the yellow-striped armyworm, P. ornithogalli Gn. The larvae from the other farm consisted of Heliothis sp. and Prodenia sp., probably P. ornithogalli Gn. (Coll. K. P. Ewing; det. J. G. Franclemont)

The oblique-banded leaf roller, Archips rosaceana (Harris), was collected from cotton in two fields in McLennan County on June 22. (Coll. K. P. Ewing; det. H. W. Capps)

On April 30 and May 2 and 3 K. P. Ewing collected aphids from 4 cotton fields in McLennan County. All the specimens collected from 3 farms were identified as the cowpea aphid, Aphis medicaginis Koch. The aphids from the fourth cotton field consisted of both the cowpea aphid, A. medicaginis Koch, and the cotton aphid, Glov. (Det. L. M. Russell)

Most of the the thrips collected on cotton by K. P. Ewing in McLennan County on April 30 were identified as Frankliniella exigua Hd., but with them were a few tobacco thrips, F. fusca (Hinds), and onion thrips, Thrips tabaci Lind. (Det. Kellie O'Neill)

Septanychus texazona McG. was collected from cotton on two farms in McLennan County on June 25 and on May 3. (Coll. K. P. Ewing; det. E. W. Baker)

Louisiana: R. C. Gaines reported July 12: "Lepiodpterous larvae have not been as numerous during the past week as in preceding weeks. In Madison Parish the percentage of squares injured by bollworms and tobacco budworms was recorded in 66 fields while making boll weevil infestation records. An average of 1% of the squares were injured."

COTTON INSECT CONDITIONS IN NORTHWEST LOUISIANA

L. D. Newsom reported on July 12 for the Shreveport area: "Light infestations of the cotton aphid are beginning to appear in some fields. Spider mite infestations are present in several fields. Light infestations of yellow-striped armyworm, webworm, and grassworm are generally prevalent in the area. Webworm infestation has been the most severe ever observed with control measures necessary for a considerable amount of acreage. The heaviest infestation of bollworm (principally the tobacco budworm, Heliothis virescens) ever observed at this time of year is on the decline, but treatment was necessary for many fields."

COTTON INSECTS IN THE LOWER RIO GRANDE VALLEY OF TEXAS

Excerpts from "Cotton Insect Survey of the Lower Rio Grande Valley, Report No. 18" issued on July 12 by A. N. White, San Benito: "Boll weevils continue to migrate into new fields in widely scattered parts of the Valley. These may increase sharply in some of the areas where recent rains have occurred. These insects are attacking late but they can still do considerable damage.

"Fleahoppers are abundant in many fields at this time and are taking off many of the tiny squares which are forming in the terminals. It is late and doubtful if these squares will have time to mature into pickable cotton in time to meet the stalk destruction deadline.

"A 'lygus bug', identified Neurocolpus nubilus Say, has been found doing considerable damage to squares and young bolls in at least one field near Rio Hondo."

COTTON INSECTS FROM MEXICO

Although the cotton leafworm, Alabama argillacea (Hbn.), was not reported from any point in the United States until July 17, A. J. Chapman collected cotton leafworms in all stages of development at Valles, San Luis Potosi, Mexico, on June 25. In the same area he found the fall armyworm, Laphygma frugiperda, and loopers of the Autographa group causing injury to cotton.

On June 24 Mr. Chapman reported lepidopterous larvae injuring cotton in Matamoros, Tamps., Mexico, some of which were determined as Prodenia sp. of the family Phalaenidae and others as the salt-marsh caterpillar, Estigmene acrea (Drury). (Det. J. G. Franclemont and H. W. Capps)

IRRIGATED COTTON OF THE SOUTHWEST

California: Two very interesting and information communications have been received from California. Gordon L. Smith, Asst. Entomologist at the University of California Agricultural Experiment Station, Berkeley, addressed a memorandum to this office on July 1, 1951 on the subject "Sulfur for Control of Spider Mites on Cotton", as follows:

"Three species of spider mites, Tetranychus atlanticus McG., T. pacificus McG. and T. bimaculatus Harvey, have been increasingly serious pests of California cotton production since the general use of chlorinated hydrocarbon insecticides for insect control started. Similar increases on other crops adjacent to or in crop rotations with cotton also increase these mite problems on cotton. All three species attacked cotton seedlings in 1951. The mites infested cotyledons and have persistently retarded growth in some areas, while in others natural control factors have effectively reduced the population. The natural control is probably only temporary, since the mites have only been reduced below the economic level of injury. Sulfur has been most useful in the control of the atlantic mite, the most injurious species attacking California cotton. Several other acaracides have been less effective than sulfur on this species. All other acaracides are so much more costly than sulfur that if sulfur is effective and can be obtained the cotton grower will use it alone or in combination with acaracides and insecticides. Several of our most serious infestations of spider mites on cotton and adjacent crops in 1951 have occurred where too frequent applications of chlorinated hydrocarbon insecticides have been used for insect control in dust form and in sprays without any acaracidal material. Acaracides, such as 1% parathion with 75-80% sulfur and some others (except aramite which is less effective in the presence of sulfur), in mixtures with sulfur have been much more effective than they are without sulfur in the mixture. The use of insecticides in spray formulations rather than dust formulations has been included in experimental work since 1946. This practice is too frequently accompanied by outbreaks of spider mites to recommend it without the warning that a shift to dust formulations containing sulfur may be necessary for spider mite control."

Stewart Lockwood, Entomologist, State of California Department of Agriculture, Sacramento, wrote on July 12: "I have just returned from an inspection of cotton fields in Southeastern California. There are approximately 14,000 acres of cotton growing now in the Palo Verde Valley of Riverside County. While there, it was observed that a leafhopper which I used to think was Empoasca fabae, now considered to be E. abrupta or possibly, arida was very numerous. Say's plant bug which caused considerable damage prior to the European War was difficult to find. In the latter part of 1930's and early in 1940 and '41, Say's plant bug lived through the winter on Five-hooked Bassia. This weed is not so prevalent in the cotton area now. Lygus bugs, Lygus hesperus, were common but not in damaging numbers. The white fly, Trialeurodes sp., was surprisingly common but no honeydew had been seen as yet. Spider mites were doing considerable damage to cotton in some fields near Blythe. Cotton fields in the Imperial Valley west of El Centro and north through Brawley were commonly infested with lygus bugs but not in serious number at the time."

Arizona: The injurious hemipterous insect populations, principally Lygus spp., increased on cotton in most areas in Maricopa County. A few bollworms and a few stink bugs were also found in some of the cotton fields. As a whole, both bollworm and stink bug populations are still low. Insecticides are being applied on a large-scale in most areas by ground equipment and airplanes. Beet armyworms were found in several fields in Pinal County near Eloy but not square damage was noted. Lygus populations were also low in this area. The injurious Hemiptera populations in Pima County continue low but are building up in a few fields. Beet armyworms are again causing damage and considerable acreages will be treated with insecticides for their control. In Yuma County spider mites are causing injury in many fields.

Spider mites, Septanychus texazona McG., were collected from stub cotton near Mesa on April 23. (Det. E. W. Baker)

Darkling beetles, Blapstinue sp., were collected on seedling cotton at Gilbert on May 7 and at Waddell on May 10. (Det. R. E. Blackwelder)

The onion thrips, Thrips tabaci Lind., were collected in large numbers on cotton in Litchfield and Deer Valley on May 8 and at Mesa on May 10. At the same time a few specimens of Frankliniella sp., perhaps helianthi (Mlt.) were collected in Deer Valley and Mesa. (Det. Kellie O'Neill)

The cotton aphid, Aphis gossypii Glov., was collected in large numbers at Waddell on May 10. The green pea aphid, Myzus persicae (Sulz.), was found in small numbers at the same time. (Det. L. M. Russell) (All coll. made by Louis W. Sheets, Mesa.)

New Mexico: The New Mexico Cotton Letter issued by the Extension Service for the week ending July 15 stated: "Local showers were reported in the Las Cruces and Artesia areas. An increase in bollworm population can be expected if the rains continue. Heavy driving rains, such as were received last week in some sections, are likely to reduce infestation of aphids and red spiders.

"Pecos Valley: Both aphid and bollworm infestations are generally light but control measures are necessary in some instances. Considerable poisoning being done - primarily spraying but some dusting by plane. Although the bollworm population is fairly general they are not building up very fast at present. Weather conditions continue generally hot and dry. Rain, however, was reported at Artesia the night of July 11. Cotton is fruiting very heavily but frequent irrigation is necessary on account of dry weather. Enough poison is available for all present needs.

"Mesilla Valley: Flea beetles beginning to show up in considerable numbers. A few Lygus. No worms found to date.

"Deming Area: The insect situation remains virtually unchanged. Populations fluctuate but the same insects remain important. Thrips are less numerous but some control is still necessary in all areas around Deming. Red spider is being found in small spots. Control programs have been very effective. Lygus and fleahoppers are present in limited numbers. Some beet armyworms have been found. Beneficial insects are abundant. Flower bugs are numerous. Some ladybird beetles are present."

Texas: L. W. Noble, Ysleta, reported for the week ending July 14: "Cotton insect infestation in the El Paso area continued low. No poison has been applied to date for hemipterous insect control in this area. Dr. S. E. Jones, entomologist and cotton grower of the El Paso and Pecos areas, reported serious infestation of the beet armyworm in the latter area."

PINK BOLLWORM

Texas: During the first week of July the Division of Pink Bollworm Control examined 171,999 cotton blooms in 95 fields in 11 counties. No pink bollworms were found in Chambers, Comal, Falls, Fort Bend, Hill, Jackson, Liberty, McLennan, Midland, and Reagan Counties. In Pecos County three pink bollworms were found in three of the 18 fields when 20,731 blooms were examined.

During the week 3,631 bolls were examined in 46 fields. In 21 fields no pink bollworms were found but 418 pink bollworms were found in 25 fields, mostly in Nueces, Kelberg, Starr, and Hidalgo Counties. Pink bollworms were found in Jim Hogg and San Patricio Counties, but not in Duval and Fort Bend Counties.

Excerpts From WEEKLY COTTON WEATHER BULLETIN issued at New Orleans, La., for the week ending July 17, 1951: Texas -- Insect control measures effective. Oklahoma -- Boll weevils increased rapidly; bollworms some fields. Arkansas -- First weevil hatching, poisoning stepped up. Mississippi -- Boll weevils increasing but control measures effective under favorable weather. Tennessee -- Boll weevil becoming numerous southern counties. Alabama -- Favorable control weevils; activity light except few local areas; poisoning active. Georgia -- Weather favorable for checking weevil activity. South Carolina -- Favorable for checking boll weevils. North Carolina -- Boll weevil, other insects under control.

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PREPARED JULY 23, 1951